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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/765,023

01/26/2004

Richard M. Podhajny

525.1023-CIP

1299

20311 7590 10/20/2008

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EXAMINER

MERCIER, MELISSA S

ART UNIT

PAPER NUMBER

1615

MAIL DATE

DELIVERY MODE

10/20/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/765,023	<b>Applicant(s)</b> PODHAIJNY, RICHARD M.	
	<b>Examiner</b> MELISSA S. MERCIER	<b>Art Unit</b> 1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5 and 7-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4-5, 7-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### **Summary**

Receipt of Applicants Remarks and Amended Claims filed on July 11, 2008 is acknowledged. Claims 1-2, 4-5, and 7-30 remain pending in this application.

### ***Claim Rejections - 35 USC § 112***

In view of Applicants Amendments to claim 1, the rejection under 35 USC 112, 2<sup>nd</sup> paragraph is withdrawn.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-2, 7-8, 14-18, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokota et al. (US Patent 5,783,570).

Yokota discloses an organic solvent soluble mucopolysaccharide consisting of an ionic complex of at least one mucopolysaccharide and a quaternary phosphonium, an antibacterial antithrombogenic composition comprising said organic solvent-soluble mucopolysaccharide and an organic polymer material, an antibacterial antithrombogenic composition comprising said organic solvent-soluble mucopolysaccharide and an antibacterial agent, and to a medical material comprising said organic solvent-soluble mucopolysaccharide. The organic solvent-soluble mucopolysaccharide, and the antibacterial antithrombogenic composition and medical material containing the same,

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of the present invention, can easily impart antithrombogenicity and antibacterial property to a polymer to be a base material, which properties being maintained not only immediately after preparation of the material but also after long-term elution (Abstract). The organic polymer material may include polyurethane and polyamide, which are both disclosed as preferred polymers (column 3, lines 42-45). The antibacterial agent may include silver zeolite, which is the preferred material (column 3, lines 56-59). The antibacterial agent may be present in the amount of 0.1 to 50 parts by weight relative to 100 parts by weight of the polymer material (column 3, lines 60-64). The composition is disclosed as being an aqueous solution or an aqueous dispersion or in the alternative of water; a weak acidic buffer may be used (column 5, lines 23-45).

Regarding claims 7-8, While there is no specific teaching of the acid number of the polymer selected, it is noted that the specification discloses both polyurethane and polyamide as preferred polymers with acid numbers less than 200 (specification, paragraphs 0030-0032).

Yokota further discloses methods of imparting antibacterial properties by coating a medical material with the composition described above (column 4, lines 30-35 and 42-47). Coating methods include spray, drip, and the like (column 7, lines 40-42).

With regard to the pore size of the zeolite it is the position of the examiner that such limitations so not impart patentability over the prior art. Applicant has expressed in the specification that the limitations such as particle size and pore size are merely the preferred embodiments, and are hence non-critical to the overall patentability of the invention. When taken into consideration that the reference achieves the same goal of a

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coated material possessing antimicrobial qualities, the particular limitations such as particle size, and pore size are non-critical and would be obvious to a skilled artisan. Barring a showing of unexpected results regarding the pore size of the claimed invention, the claimed invention cannot be deemed patentably distinct over the prior art.

With regard to the orientation of the coating layer (discontinuous, continuous) in claim 21 and the thickness of the coating layer, in claims 24-25, it is the position of the examiner that the limitation is non-critical to the patentability of the invention. It is also the position of the examiner that the orientation of the layer (discontinuous or continuous) would be well within the level of ordinary skill in the art to adjust. It would be obvious to a skilled artisan to apply the layer in whichever pattern best suited the application of the packaging material. These two limitation can be achieved through routine experimentation, and modification by those of ordinary skill it the art.

With regard to claim 22-23 that the method of printing is preformed by a particular method, these claims are deemed a product-by-process claim and do not distinguish the claim from the prior art. The prior art provides a composition with identical components, although produced by a different process; the burden is shifted to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. See *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983).

Applicant is reminded that where the general conditions of the claims are met, burden is shifted to applicant to provide a patentable distinction. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the

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optimum or workable ranges by routine experimentation. See *In re Aller*, 220 F.2d 454 105 USPQ 233,235 (CCPA 1955).

Claims 1-2, 7-12, 14-19, 21-25, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai et al. (US patent 5,280,054).

Sakai disclose a coating composition for use in hydrophilic treatment which is capable of forming a film having improved durability of hydrophilic properties, producing little or no water-eluted material therefrom and having improved mildew proofing properties (column 2, lines 36-42). The composition comprises an aqueous silica dispersion comprising acrylate polymers, such as methyl acrylate, ethyl acrylate, propyl acrylate, for example (column 5, lines 10-33). Fungiproof agents, including silver zeolite, can be included (column 11, lines 3-32). The amount of the fungiproof agent is in the range of 1-30% by weight based on the total solids content of the composition (column 11, lines 33-35). The coating composition may also include pH'ing agents. The coating composition can be applied by convention coating methods including dip coating, shower coating, spray coating, roll coating and the like (column 11, lines 11-60-62). It is further disclosed the coating composition is applied by preparing an aqueous bath of the coating composition, which would read on applicant's water-based limitation. The coating has a thickness of 0.2 to 5u (column 12, lines 20-25). The examiner has interpreted printing to including coating techniques disclosed by Sakai.

With regard to the pore size of the zeolite it is the position of the examiner that such limitations so not impart patentability over the prior art. Applicant ahs expressed in

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the specification that the limitations such as particle size and pore size are merely the preferred embodiments, and are hence non-critical to the overall patentability of the invention. When taken into consideration that the reference achieves the same goal of a coated material possessing antimicrobial qualities, the particular limitations such as particle size, and pore size are non-critical and would be obvious to a skilled artisan. Barring a showing of unexpected results regarding the pore size of the claimed invention, the claimed invention cannot be deemed patentably distinct over the prior art.

With regard to the pH of the dispersion, Sakai discloses the use of pH'ing agents; therefore, barring a showing of criticality to the functionality of the dispersion for its intended function, the pH range would be determined through routine experimentation.

With regard to the orientation of the coating layer (discontinuous, continuous) in claim 21 and the thickness of the coating layer, in claims 24-25, it is the position of the examiner that the limitation is non-critical to the patentability of the invention. It is also the position of the examiner that the orientation of the layer (discontinuous or continuous) would be well within the level of ordinary skill in the art to adjust. It would be obvious to a skilled artisan to apply the layer in whichever pattern best suited the application of the packaging material. These two limitation can be achieved through routine experimentation, and modification by those of ordinary skill it the art.

Claims 4-5, 19- 20, 26-28, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokota et al. (US Patent 5,783,570) in view of Lindgren et al. (US Patent 5,603,997).

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The teachings of Yokota are discussed above and applied in the same manner.

Yokota does not disclose the pH of the dispersion, the hydrophobic of the zeolite coating or substrate to which the film is applied to include the substrates of the instant claims.

With regard to claims 4-5, Lindgren discloses zeolite particles reducing the undesirable tastes can be added within a very broad pH range, since the zeolite particles are crystalline and thus an inert nature. A good effect is thus obtained when the pH of the suspension before dewatering lies into eh range of about 3.0 up to about 10.0 (column 9, lines 13-25).

With regard to the hydrophobic of the zeolite-coating compound, it is within the level of skill in the art to prepare a hydrophobic coating composition. Also the application and use of such coatings are known in the art as seen in Lindgren et al. (Abstract).

Lindgren further discloses the packaging material may include paper, board, paperboard, plastic, aluminum foil, and textile fabrics, or any combination thereof (column 3, lines 27-37).

It would have been obvious to a person of ordinary skill in the art to utilize a hydrophobic zeolite coating since, the art of food packaging preparation hydrophobic metallic zeolite compositions are used to repel water and reduce mildew on the resulting packaging material (column 5, lines 13 - 47). One of ordinary skill in the art would have a reasonable expectation of success since both references teach the use of zeolites in coatings of packaging materials.

### ***Response to Arguments***

Applicant's arguments have been fully considered but they are not persuasive. Applicant argues Yokota does not disclose the acid number of the polymer. However, as was discussed in the rejection, Yokota discloses preferred polymers polyurethane and polyamide, while Sakai discloses acrylate polymers, which Applicant has disclosed as polymers with acid numbers less than 200. While it is acknowledged that Yokota and Sakai discloses a grouping of polymers, it is submitted that the group constitutes a finite groupings. It would, therefore, have been obvious to one of ordinary skill in the art at the time the invention was made to have selected the polymers as disclosed by Applicant. A property can not be separated from a component. Additionally, the prior art need not recognize the specific property. Yokota and Sakai disclose the same composition for the same intended purpose. The recitation of "can be printed onto a surface of a substrate" is regarded as future intended use of the composition and not given patentable weight. Since the reference discloses the dispersion can be sprayed or coated onto substrate, it would lead one of ordinary skill in the art to attempt to print with the dispersion.

Applicant did not provide any additional arguments regarding the Lindgren reference.

***Response to Amendment***

The Declaration under 37 CFR 1.132 filed July 11, 2008 is insufficient to overcome the rejection of claims 1-2, 4-5, and 7-30 based upon 35 USC 103(a) as set forth in the last Office action because: the declaration has not provided any experimental evidence comparing the cited compositions of Yokota and Sakai. The declaration also does not present evidence as to the entire scope of the acid number less than 200 as claimed. The evidence submitted is for 3 polymers with acid numbers around 60. There is no indication whether polymers with acid numbers of 199 would provide the same results as those of acid numbers at around 60.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELISSA S. MERCIER whose telephone number is (571)272-9039. The examiner can normally be reached on 8:00am-4:30pm Mon through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571) 272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Melissa S Mercier/  
Examiner, Art Unit 1615

/MP WOODWARD/  
Supervisory Patent Examiner, Art Unit 1615